

C-4

EPA General Permit WAG130000 - Annual Report



Annual Report of Operations
for Year 2020

To comply with NPDES General Permit No. WAG130000 for Federal Aquaculture Facilities and Aquaculture Facilities Located in Indian Country within the Boundaries of the State of Washington

NPDES # for your Facility:

WAG130020

Facility & Owner Information

Facility Name: Keta Creek Hatchery Complex	
Operator Name (Permittee): Hugo Hernandez	
Address: 39015 172nd Ave SE Auburn WA 98092	
Email: Hugo.Hernandez@muckleshoot.nsn.us	Phone: 253-876-3341
Owner Name (if different from operator): Muckleshoot Indian Tribe	
Email:	Phone:

Best Management Practices (BMP) Plan

Has the BMP Plan been reviewed this year? ☒ Yes ☐ No

Does the BMP Plan fulfill the requirements of the General Permit? ☒ Yes ☐ No

Summarize any changes to the BMP Plan since the last annual report. Attach additional pages if necessary.

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Operations and Production

Total harvestable weight produced in the past calendar year in pounds (lbs): **83,262 lbs**
Pounds of food fed to fish during the maximum month:
12805.5 LBS

List the species grown or held at your facility and the annual production of each in gross harvestable weight. If fish were released rather than harvested, list the weight at time of release.

Species	Fish Produced	Receiving Water(s) to which Fish were Released	Month Released/Spawned
Chum Salmon	6,176,797	Crisp Creek	~362.1 FPP
Coho Salmon	953,601	Crisp Creek	~16 FPP
Coho Salmon	133,388	Transfer to Elliot Bay Tribal Net Pen	~25FPP

Fill in the table below with production numbers from the past year. List the **maximum** amount of fish on-site and the maximum amount of food fed **per month**.

Month	Total Fish (lbs)	Fish Feed (lbs)	Month	Total Fish (lbs)	Fish Feed (lbs)
January	43600	6587	July	12683	3980
February	53617	5869.75	August	14768	2898
March	61215	12805.5	September	19691	2704
April	77994	7167	October	20606	3806
May	11314	4160	November	26450	3664
June	11812	3484.5	December	34748	4738

Additional Comments: During the months of February, March, April, and May fish are transferred and released.

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Solid Waste Disposal

Describe the solid waste disposed of during the calendar year (including fish mortalities).

Type of Solid Disposed	Date Disposed	Location Disposed
Juvenile coho	1/1/20-12/31/20	Upland disposal
Juvenile chum	10/30/20-5/5/20	Upland disposal
Solids collected in the SB	10/15/20	Tribal Landfill
Additional Comments:		

Fish Mortalities

Include a description and the dates of mass mortalities in the past year (more than 5% per week). Attach additional pages, if necessary. Include total mortalities from all causes.

Date	Cause of Deaths	Steps Taken to Correct Problem	Pounds of Fish
2020	No mass mortality		
Additional Comments:			

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Noncompliance Summary

Include a description and the dates of noncompliance events (including spills), the reasons for the incidents, and the steps taken to correct the problems. Attach additional pages, if necessary.
KETA Creek complex was in compliance for the year of 2020.

Inspections & Repairs for Production & Wastewater Treatment Systems

Date Inspected	Date Repaired	Description of System Inspected and/or Repaired
Daily	Weekly maintenance	Instrumentation and water filtration equipment monitored weekly.

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Aquaculture Drugs and Chemicals

Please indicate whether you used each drug/chemical **during the past calendar year**.
Describe the use of each drug/chemical in more detail on the following pages.

Used in the past year?	Drug or Chemical
<input type="checkbox"/> Yes <input type="checkbox"/> No	Azithromycin
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Chloramine-T: <i>See additional reporting requirements on page 7</i>
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Chlorine
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Draxxin
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Erythromycin - injectable
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Erythromycin - medicated feed
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Florfenicol (Aquaflor)
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Formalin - 37% formaldehyde: <i>See additional reporting requirements on page 7</i>
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Herbicide - describe:
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Hormone - describe:
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Hydrogen Peroxide: <i>See additional reporting requirements on page 7</i>
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Iodine: <i>See additional reporting requirements on page 7</i>
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Oxytetracycline
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Potassium Permanganate: <i>See additional reporting requirements on page 7</i>
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Romet
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	SLICE (emamectin benzoate)
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Sodium Chloride - salt
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Vibrio vaccine
<input type="checkbox"/> Yes <input type="checkbox"/> No	Other:
<input type="checkbox"/> Yes <input type="checkbox"/> No	Other:

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Aquaculture Drugs and Chemicals (cont'd)

Describe all drug and/or chemical treatments that occurred during the year. Fill out the information below for each drug or chemical, plus page 7 for water-borne treatments. Attach additional pages as necessary.

Brand Name: Parasite-S		Generic Name: Formalin	
Reason for use: Prophylactic use for egg treatment			
<input checked="" type="checkbox"/> Preventative/Prophylactic <input type="checkbox"/> As-needed	Total quantity of formulated product per treatment (specify units): Acc. to Label		Total quantity of formulated product used in past year (specify units): 677.589Liters
Date(s) of treatment: January 2020-December 2020			Total number of treatments in past year: 411
Maximum daily volume of treated water: 8130 Gallons	Treatment concentration (specify units): .072ppm-2.023 ppm		Duration and frequency of treatment(s): 15 minutes
Method of application: <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Static Bath <input checked="" type="checkbox"/> Flow-through </div> <div> <input type="checkbox"/> Medicated Feed <input type="checkbox"/> Other (describe): </div> </div>			
Location in facility chemical was used (check all that apply): <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Raceways <input checked="" type="checkbox"/> Incubation building </div> <div> <input type="checkbox"/> Ponds <input type="checkbox"/> Off-line settling basin </div> <div> <input type="checkbox"/> Other (describe): </div> </div>			
Where did water treated with this chemical go? (check all that apply): <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Discharged w/o treatment <input checked="" type="checkbox"/> Settling basin </div> <div> <input type="checkbox"/> Septic System <input type="checkbox"/> Publicly owned treatment works </div> <div> <input type="checkbox"/> Other (describe): </div> </div>			
Provide any additional information about how this chemical was used and/or special pollution prevention practices during use: All treated incubation water discharges into the KETA clarifier. As the clarifier discharges it mixes with, KETA complex effluent water			

Brand Name: Bio-Oregon Feed		Generic Name: AquaFlor	
Reason for use: Treatment for cold water disease			
<input type="checkbox"/> Preventative/Prophylactic <input checked="" type="checkbox"/> As-needed	Total quantity of formulated product per treatment: Depends on FPP and DI		Total quantity of formulated product used in past year (specify units): 1916 lbs
Date(s) of treatment: 3/11/20-5/31/20			Total number of treatments in past year: 2
Maximum daily volume of treated water: 11,700 gallons	Treatment concentration (specify units): 15 mg/kg		Duration and frequency of treatment(s): 10 days at 5 feedings per day
Method of application: <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Static Bath <input type="checkbox"/> Flow-through </div> <div> <input checked="" type="checkbox"/> Medicated Feed <input type="checkbox"/> Other (describe): </div> </div>			
Location in facility chemical was used (check all that apply): <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Raceways <input type="checkbox"/> Incubation building </div> <div> <input type="checkbox"/> Ponds <input type="checkbox"/> Off-line settling basin </div> <div> <input checked="" type="checkbox"/> Other (describe): Rearing Circular Tanks </div> </div>			
Where did water treated with this chemical go? (check all that apply): <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Discharged w/o treatment <input checked="" type="checkbox"/> Settling basin </div> <div> <input type="checkbox"/> Septic System <input type="checkbox"/> Publicly owned treatment works </div> <div> <input checked="" type="checkbox"/> Other (describe): DF to EFlne SB </div> </div>			
Provide any additional information about how this chemical was used and/or special pollution prevention practices during use: Effluent water passes through the drum filter and solids flow to the settling basin.			

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Aquaculture Drugs and Chemicals (cont'd)

Additional Reporting Requirements for Water-Borne Treatments

- If a water-borne treatment was used during the calendar year, Permittees must include detailed records/calculations as an attachment to this Annual Report in order to demonstrate how the maximum effluent concentrations of solution and active ingredient were calculated for each chemical.
- EPA recognizes that water-borne treatments may vary in the volume of the vessels treated, concentration, quantity of product, etc. Permittees must provide the information listed in the following tables for a reasonable worst case (i.e., maximum effluent concentration) scenario, not for each individual treatment.
- Permittees must submit this information and calculate the maximum effluent concentration for each water-borne chemical used during the past calendar year.
- See also Appendix D for the Chemical Log Sheet.

Static Bath Treatments		
Tank Volume	189	Liters
Desired Static Bath Treatment Concentration	100	µg/L
Volume of Product Needed	1.8	Liters Product
Maximum Effluent Concentration of: 1) Solution and 2) Active Ingredient	Solution: 1:100 dilution-100 ppm Active Ingredient: 10% Povidone Iodine	Specify Units
Minimum Volume of Total (treated + untreated) Water Discharged from the Facility per day	4977.816 LPM	Specify Units
Maximum % of Facility Discharge Treated	.038	% of Total Discharge

Flow-Through Treatments		
Tank Volume	567.8	Liters
Calculated Flow Rate	10594	Liters/Minute
Duration of Treatment	15	Minutes
Desired Flow-Through Treatment Concentration of Product	117.2	µg/L
Amount of Product to Add Initially	1.2	Liters Product
Amount of Product to Add During Treatment	1200	mL/Minute
Total Volume of Product Needed	.84	Liters Product
Maximum Effluent Concentration of: 1) Solution and 2) Active Ingredient	Solution: 18000 ml Active Ingredient: Formalin 2.023 ppm	Specify Units
Minimum Volume of Total (treated + untreated) Water Discharged from the Facility per day	1888 GPM	Specify Units
Maximum % of Facility Discharge Treated	1.8%	% of Total Discharge

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Changes to the Facility or Operations

Describe any changes to the facility or operations since the last annual report.

There has been no changes to the hatchery facility or operations since the 2019 annual report.

Signature and Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly evaluate and gather the information submitted. Based on my inquiry of the person or persons, who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

<i>Hugo Hernández</i>	<i>Green River Team Leader</i>
Printed name of person signing	Title
<i>[Signature]</i>	<i>02/02/2021</i>
Applicant Signature	Date Signed

Submittal Information

Send the complete, signed information, along with any attachments, to the following address:

U.S. EPA Region 10, OWW-191
Washington Hatchery Annual Report
1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3140